

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ronald Patrick Huemoeller et al.

Assignee: Amkor Technology, Inc.

Title: INTEGRATED CIRCUIT SUBSTRATE HAVING EMBEDDED

LANDS WITH ETCHING AND PLATING CONTROL SHAPES

Serial No.: 10/70

10/701,782 Filed:

led: November 5, 2003

Examiner:

Yuriy Semenenko

Group Art

2841

Unit:

Docket No.:

G0092-7P

Monterey, CA June 7, 2006

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# INFORMATION DISCLOSURE STATEMENT UNDER §1.97(c) WITH FEE

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant(s) wish to call the following documents (a copy of each non-US Patent document is enclosed) to the attention of the Examiner.

## U.S. PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	NAME
1)	3,868,724	02/25/75	Perrino
2)	3,916,434	10/28/75	Garboushian
3)	4,532,419	07/30/85	Takeda
4)	4,706,167	11/10/87	Sullivan
5)	4,716,049	12/29/87	Patraw
6)	4,786,952	11/22/88	MacIver et al.
7)	4,897,338	01/30/90	Spicciati et al.
8)	4,905,124	02/27/90	Banjo et al.
9)	4,964,212	10/23/90	Deroux-Dauphin et al.

06/13/2006 MBELETE1 00000006 10701782 180.00 0P

GUNNISON, McKAY & HODGSON, LL.P. Garden West Office Plaza, Saite 220 1900 Garden Road Monterey, CA, 97940 (831) 655-0880 Fax (831) 655-0888

10)	4,974,120	11/27/90	Kodai et al.
11)	4,996,391	02/26/91	Schmidt
12)	5,081,520	01/14/92	Yoshii et al.
13)	5,108,553	04/28/92	Foster et al.
14)	5,110,664	05/05/92	Nakanishi et al.
15)	5,247,429	09/21/93	Iwase et al.
16)	5,283,459	02/01/94	Hirano et al.
17)	5,371,654	12/06/94	Beaman et al.
18)	5,379,191	01/03/95	Carey et al.
19)	5,463,253	10/31/95	Waki et al.
20)	5,474,957	12/12/95	Urushima
21)	5,474,958	12/12/95	Djennas et al.
22)	5,530,288	06/25/96	Stone
23)	5,531,020	07/02/96	Durand et al.
24)	5,574,309	11/12/96	Papapietro et al.
25)	5,581,498	12/03/96	Ludwig et al.
26)	5,582,858	12/10/96	Adamopoulos et al.
27)	5,616,422	04/01/97	Ballard et al.
28)	5,637,832	06/10/97	Danner
29)	5,674,785	10/07/97	Akram et al.
30)	5,719,749	02/17/98	Stopperan
31)	5,739,581	04/14/98	Chillara
32)	5,739,585	04/14/98	Akram et al.
33)	5,739,588	04/14/98	Ishida et al.
34)	5,742,479	04/21/98	Asakura
35)	5,784,259	07/21/98	Asakura
36)	5,798,014	08/25/98	Weber
37)	5,822,190	10/13/98	Iwasaki
38)	5,826,330	10/27/98	Isoda et al.
39)	5,835,355	11/10/98	Dordi
40)	5,894,108	04/13/99	Mostafazadeh et al.
41)	5,903,052	05/11/99	Chen et al.
42)	5,936,843	08/10/99	Ohshima et al.

43)	5,952,611	09/14/99	Eng et al.
44)	6,004,619	12/21/99	Dippon et al.
45)	6,013,948	01/11/00	Akram et al.
46)	6,021,564	02/08/00	Hanson
47)	6,028,364	02/22/00	Ogino et al.
48)	6,034,427	03/07/00	Lan et al.
49)	6,040,622	03/21/00	Wallace
50)	6,060,778	05/09/00	Jeong et al.
51)	6,069,407	05/30/00	Hamzehdoost
52)	6,072,243	06/06/00	Nakanishi
53)	6,119,338	09/19/00	Wang et al.
54)	6,122,171	09/19/00	
55)	6,127,833	10/03/00	Wu et al.
56)	6,160,705	12/12/00	
57)	6,172,419	01/09/01	
58)	6,184,463	02/06/01	
59)	6,214,641	04/10/01	Akram
60)	6,235,554	05/22/01	Akram et al.
61)	6,274,821	08/14/01	
62)	6,280,641	08/28/01	Gaku et al.
63)	6,316,285	11/13/01	Jiang et al.
64)	6,353,999	03/12/02	Cheng
65)	6,392,160	05/21/02	Andry et al.
66)	6,395,578	05/28/02	Shin et al.
67)	6,405,431	06/18/02	Shin et al.
68)	6,406,942	06/18/02	Honda
69)	6,407,341	06/18/02	Anstrom et al.
70)	6,407,930	06/18/02	Hsu
71)	6,451,509	09/17/02	Keesler et al.
72)	6,479,762	11/12/02	Kusaka
73)	6,497,943	12/24/02	Jimarez et al.
74)	6,517,995	02/11/03	Jacobson et al.
75)	6,544,638	04/08/03	Fischer et al.

76)	6,586,682	07/01/03	Strandberg
77)	6,715,204	04/06/04	Tsukada et al.
78)	6,727,645	04/27/04	Tsujimura et al.
79)	6,730,857	05/04/04	Konrad et al.
80)	6,753,612	06/22/04	Adae-Amoakoh et al.
81)	6,787,443	09/07/04	Boggs et al.
82)	6,803,528	10/12/04	Koyanagi
83)	6,815,739	11/09/04	Huff et al.
84)	2002/0017712	02/14/02	Bessho et al.
85)	2003/0128096	07/10/03	Mazzochette
86)	D445,096	07/17/01	Wallace
87)	D446,525	08/14/01	Okamoto et al.

#### FOREIGN DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY
1)	JP 05-109975	04/30/93	Japan
2)	JP 05-136323	06/01/93	Japan
3)	JP 07-017175	01/20/95	Japan
4)	JP 08-190615	07/23/96	Japan
5)	JP 10-334205	12/18/98	Japan

A PTO form 1449 listing these documents is enclosed. The relevance of the non-English language documents is set forth in the enclosed English translations.

Citation of the above documents shall not be construed as:

- 1. an admission that the documents are necessarily prior art with respect to the instant invention;
- 2. a representation that a search has been made, other than as described above; or
- 3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

Enclosed herewith is a check in the amount of \$180.00 payable to the Director of the United States Patent and

Trademark Office, which is the amount for submission of an Information Disclosure Statement given in 37 C.F.R. § 1.17(p).

The Commissioner is hereby authorized to charge any additional fees, which may be required to consider this paper, or credit any overpayment to Deposit Account No. 50-0553.

#### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 7,

2006

Attorney for Applicant(s)

June 7, 2006

Date of Signature

Respectfully submitted,

Serge J. Hodgson

Attorney for Applicant(s)

Reg. No. 40,017 (831) 655-0880

Sheet 1 of 5 Serial No. Form PTO-1449 Atty Docket No. G0092-7P 10/701,782 INFORMATION DISCLOSURE CITATION Applicant(s) Ronald Patrick Huemoeller et al. IN AN APPLICATION JUN 1 2 2006 Filing Date Group November 5, 2003 2841 Use several sheets if necessary) PADEMA U.S. PATENT DOCUMENTS FILING DATE EXAMINER NAME DOCUMENT NUMBER DATE CLASS SUBCLASS INITIAL IF APPROPRIATE AA 02/25/75 357 3,868,724 Perrino 65 AB 10/28/75 3,916,434 Garboushian 357 74 AC 492 4,532,419 07/30/85 Takeda 235 AD 4,706,167 11/10/87 Sullivan 361 406 ΑE 427 4,716,049 12/29/87 Patraw 96 AF 4,786,952 11/22/88 MacIver et al. 357 23.4 AG 4,897,338 01/30/90 Spicciati et al. 430 314 AΗ 361 395 4,905,124 02/27/90 Banjo et al. ΑÏ 4,964,212 10/23/90 Deroux-Dauphin et al. 29 852 ΑJ 361 392 11/27/90 Kodai et al. 4,974,120 ΑK 255 4,996,391 Schmidt 174 02/26/91 AL357 5,081,520 01/14/92 Yoshii et al. 80 AM Foster et al. 205 125 5,108,553 04/28/92 AN 05/05/92 Nakanishi et al. 428 195 5,110,664

### Hirano et al. FOREIGN PATENT DOCUMENTS

Iwase et al.

362

257

29

419

							Trans	lation
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	МО
	AQ	JP 05-109975	04/30/93	Japan			х	
_	AR	JP 05-136323	06/01/93	Japan			х	
	AS	JP 07-017175	01/20/95	Japan			х	
	AT	JP 08-190615	07/23/96	Japan			x	
	AU	JP 10-334205	12/18/98	Japan			x	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

ΑV

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5,247,429

5,283,459

Examiner

Date Considered

09/21/93

02/01/94

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

Form PTO	Form PTO-1449				Atty Docket No. Serial No.						
	Į				G0092-7P 10/701,782						
I	NFORM	MATION DISCLOSUR	RE CITATION		Applicant(s)						
		IN AN APPLICAT	NOI:		Ronald Patrick Huemoeller et al.						
					Filing Date	е			Gr	coup	
	(Use	several sheets if	necessary)		November	5,	2003		28	341	
			<b>U.S.</b>	PATENT D	OCUMENTS						
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME			CLASS	SUBCLASS	3	FILING D	
	AA	5,371,654	12/06/94	Beaman	et al.		361	74	4		
	AB	5,379,191	01/03/95	Carey e	t al.		361	77	7		
	AC	5,463,253	10/31/95	Waki et	al.		257	72	4		
	AD	5,474,957	12/12/95	Urushim	a		437	20	9		
	AE	5,474,958	12/12/95	Djennas	et al.		437	21	1		<u> </u>
	AF	5,530,288	06/25/96	Stone			257	70	0		
	AG	5,531,020	07/02/96	Durand	et al.		29	84	0		
	АН	5,574,309	11/12/96	Papapie	tro et al.		257	67	9		
	AI	5,581,498	12/03/96	Ludwig	et al.		365	63			
	AJ	5,582,858	12/10/96				427	96			
	AK	5,616,422	04/01/97	Ballard	et al.		428	621			
	AL	5,637,832	06/10/97	Danner			174	260			
	AM	5,674,785	10/07/97	Akram e	t al.		437	21	.7		
	AN	5,719,749	02/17/98	Stopper	an		361	76	9		
	AO	5,739,581	04/14/98	Chillar	·a		257	66	8		
	AP	5,739,585	04/14/98	Akram e	t al.		257	69	8		
	AQ	5,739,588	04/14/98	Ishida	et al.		257	78	32		
	AR	5,742,479	04/21/98	Asakura			361	73	37		
	AS	5,784,259	07/21/98	Asakura	1		361	75	52	i	
	AT	5,798,014	08/25/98	Weber			156	26	53		
-			FOREIG	N PATENT	DOCUMENTS		•				
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through ci	EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).										

Form PTO-1449				Atty Docket No.				Serial No.			
					G0092-7P 10/701,782						
. 3	NFORM	NATION DISCLOSUR	RE CITATION		Applicant(s)						
		IN AN APPLICAT	LION		Ronald Patrick Huemoeller et al.						
					Filing Date	Э			Gr	oup	
	(Use	several sheets if	necessary)		November	5,	2003		28	841	
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME			CLASS	SUBCLASS		FILING DA	
	AA	5,822,190	10/13/98	Iwasaki			361	73	7	·	
	AB	5,826,330	10/27/98	Isoda e	t al.		29	852	2		
	AC	5,835,355	11/10/98	Dordi			361	760	0		
	AD	5,894,108	04/13/99	Mostafa	zadeh et a	al.	174	52.4	4		_
	AE	5,903,052	05/11/99	Chen et	al.		257	700	6		
	AF	5,936,843	08/10/99	Ohshima	et al.		361	760	0		
	AG	5,952,611	09/14/99	Eng et	al.		174	52.4	4		
	AH	6,004,619	12/21/99	Dippon	et al.		427	9'	7		
	AI	6,013,948	01/11/00	Akram e	t al.		257	698			
	АJ	6,021,564	02/08/00	Hanson			29	852			
	AK	6,028,364	02/22/00	Ogino e	t al.	·	257	778			
	AL	6,034,427	03/07/00	Lan et	al.		257	698			
	AM	6,040,622	03/21/00	Wallace			257	67	9		
	AN	6,060,778	05/09/00	Jeong e	t al.		257	71	0		
	AO	6,069,407	05/30/00	Hamzehd	oost		257	77	4		
	AP	6,072,243	06/06/00	Nakanis	hi		257	78	3		
	AQ	6,119,338	09/19/00	Wang et	al.		29	85	2		
	AR	6,122,171	09/19/00	Akram e	t al.		361	70	4		
	AS	6,127,833	10/03/00	Wu et a	1.		324	75	5		
	АТ	6,160,705	12/12/00	Stearns	et al.		361	70	4		
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Form PTO	Form PTO-1449				Atty Docket No. Serial No				•	
					G0092-7P 10/701,782					
1	NFORM	MATION DISCLOSUR	RE CITATION		Applicant(s)					
		IN AN APPLICAT	CION		Ronald Patrick Huemoeller et al.					
					Filing Date	•		Group	-	
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME		CLASS	SUBCLASS	FILING IF APP	DATE ROPRIATE	
	AA	6,172,419	01/09/01	Kinsman		257	737	7		
	AB	6,184,463	02/06/01	Panchou	et al.	174	52.4	1		
	AC	6,214,641	04/10/01	Akram		438	107	7		
	AD	6,235,554	05/22/01	Akram e	t al.	438	109	9		
	AE	6,274,821	08/14/01	Echigo	et al.	174	255	5		
	AF	6,280,641	08/28/01	Gaku et	al.	216	17	7		
	AG	6,316,285	11/13/01	Jiang e	t al.	438	106	5		
	AH	6,353,999	03/12/02	Cheng	Cheng		852	2		
	AI	6,392,160	05/21/02			174	261	ı		
	AJ	6,395,578	05/28/02			438	106	5		
	AK	6,405,431	06/18/02	Shin et	Shin et al.		852	2		
	AL	6,406,942	06/18/02	Honda		438	119	9		
	AM	6,407,341	06/18/02	Anstrom	et al.	174	255	5		
	AN	6,407,930	06/18/02	Hsu		361	784	1		
	AO	6,451,509	09/17/02	Keesler	et al.	430	313	1		
	AP	6,479,762	11/12/02	Kusaka		174	26	1		
	AQ	6,497,943	12/24/02	Jimarez	et al.	428	209	9		
	AR	6,517,995	02/11/03	Jacobso	on et al.	430	320	0		
	AS	6,544,638	04/08/03	Fischer	et al.	428	322.	7		
	АТ	6,586,682	07/01/03	Strandh	erg	174	259	5		
			FOREIG	N PATENT	DOCUMENTS					
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		DOCUMENT NUMBER	DATE	COUNTRY		CLASS	SUBCLASS	YES	NO	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

Form PTO-1449				Atty Docket No. Ser				Serial No.			
					G0092-7P 10/701,782					2	
I	NFORM	MATION DISCLOSU	RE CITATION	r	Applicant(s)						
	IN AN APPLICATION					Ronald Patrick Huemoeller et al.					
					Filing Date	3			Gr	oup	
	(Use	several sheets if	necessary)		November	5,	2003	<u> </u>	28	841	
			v.s.	PATENT D	OCUMENTS						
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME			CLASS	SUBCLASS	s	FILING DA	
	AA	6,715,204	04/06/04	Tsukada	et al.		29	84	7		
	AB	6,727,645	04/27/04	Tsujimu	ra et al.		313	50	4		
	AC	6,730,857	05/04/04	Konrad	et al.		174	25	7		
	AD	6,753,612	06/22/04	Adae-Am	oakoh et a	al.	257	77	4		
-	AE	6,787,443	09/07/04	Boggs e	t al.		438	61	.2		
	AF	6,803,528	10/12/04	Koyanag	i		174	26	2		
	AG	6,815,739	11/09/04	Huff et	al.	·=	257	27	'5	-	
:	AH	2002/0017712	02/14/02	Bessho	et al.		257	70	0		
	AI	2003/0128096	07/10/03	Mazzoch	ette		338	22		-	
	AJ	D445,096	07/17/01			D14	117				
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